



(19)

(11) Publication number: **61134019 A**

Generated Document.

PATENT ABSTRACTS OF JAPAN(21) Application number: **59256653**(51) Intl. Cl.: **H01L 21/30**(22) Application date: **05.12.84**

<p>(30) Priority:</p> <p>(43) Date of application publication: 21.06.86</p> <p>(84) Designated contracting states:</p>	<p>(71) Applicant: NEC CORP</p> <p>(72) Inventor: MATSUI SHINJI MORI KATSUMI ASATA SUSUMU</p> <p>(74) Representative:</p>
---	---

(54) FORMATION OF PATTERN

(57) Abstract:

PURPOSE: To simplify a process by directly etching silicon or an silicon nitride thin-film through electron-beam assisting etching.

CONSTITUTION: XeF₂202 is introduced into a reaction-gas material housing chamber 201, and a substrate 205, to an upper layer thereof an Si thin-film is formed, is set to a sample base 204. An electron-beam projection system 210 and a sample chamber 208 are evacuated up to a high vacuum of approximately 10⁻⁵ Torr or higher. A reaction gas material XeF₂ exists as a solid in atmospheric air but easily sublimates by an evacuation, and passes through a piping 203, and the inside of a by-sample chamber 206 is filled with XeF₂ as a reaction gas. The substrate 205, to the upper layer thereof the Si thin-film is shaped, is irradiated by electron beams focussed through a pin hole 207, and the Si thin-film at a position irradiated is etched.

COPYRIGHT: (C)1986,JPO&Japio

